AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 4

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0001	15-Feb-2007		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USACE, CONTRACTING DIVISION ATTN: RFO CT 525 ST. CHARLES AVE. NEW ORLEANS LA 70130-3409	W912P8	**See Item 6**	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. W912P8-07-B-0022
	X	9B. DATED (SEE ITEM 11) 29-Jan-2007
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [ ] is extended, [X] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The above numbered solicitation for West Atchafalaya Basin Protection Levee, Recretional Element of the Atchafalaya Basin Floodway System, Myette Point Boat Launch, St. Mary Parish, LA, is hereby modified as shown on the attached pages.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 15-Feb-2007

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The following have been added by full text:

AMENDMENT 1

SECTION 02300

Delete this section in its entirety and substitute the new revised Section 02300 therefore.

SECTION 02411

Page 3. paragraph 2.1. In the last sentence change “shall be cold rolled” to “shall be hot rolled or cold rolled”.

SECTION 02721

Page 3. Add the following after paragraph 1.4.1:

“1.4.2 WEIGHT TO VOLUME CONVERSION

In lieu of vehicle delivery outlined above, the Contractor may use weights and a conversion factor to determine the cubic yard quantity of each vehicle. If this method is used the following procedures will be followed:

1 Using a vehicle where the volume capacity can easily be determined (a simple box bed with no obstructions in the bed), the vehicle is filled to capacity and the load leveled off.

2 The weight of material in the vehicle is determined using certified scales.

3 The vehicle is either driven to the site or a minimum of 10 miles if the vehicle is not actually used to deliver material to the site.

4 The volume of the material is then determined using the method outlined in paragraph 1.4.1.

5 Using the weight of material in this test vehicle and the computed volume of material a factor to convert from tons to cubic yards is determined. This conversion factor will be used to determine cubic yard quantities for material hauled from the same site with weights determined using the certified scales. The above procedures will be repeated for every 1,000 cubic yards of material delivered from the same site. The procedure for determining the conversion factor shall be witnessed by the Government.”

SECTION 02722

Page 2. Add the following after paragraph 1.4.1:

“1.4.2 WEIGHT TO VOLUME CONVERSION

In lieu of vehicle delivery outlined above, the Contractor may use weights and a conversion

factor to determine the cubic yard quantity of each vehicle. If this method is used the following procedures will be followed:

1 Using a vehicle where the volume capacity can easily be determined (a simple box bed with no obstructions in the bed), the vehicle is filled to capacity and the load leveled off.

2 The weight of material in the vehicle is determined using certified scales.

3 The vehicle is either driven to the site or a minimum of 10 miles if the vehicle is not actually used to deliver material to the site.

4 The volume of the material is then determined using the method outlined in paragraph 1.4.1.

5 Using the weight of material in this test vehicle and the computed volume of material a factor to convert from tons to cubic yards is determined. This conversion factor will be used to determine cubic yard quantities for material hauled from the same site with weights determined using the certified scales. The above procedures will be repeated for every 1,000 cubic yards of material delivered from the same site. The procedure for determining the conversion factor shall be witnessed by the Government."

SECTION 02731

Page 2. Add the following after paragraph 1.3.2:

"1.3.3 WEIGHT TO VOLUME CONVERSION

In lieu of vehicle delivery outlined above, the Contractor may use weights and a conversion factor to determine the cubic yard quantity of each vehicle. If this method is used the following procedures will be followed:

1. Using a vehicle where the volume capacity can easily be determined (a simple box bed with no obstructions in the bed), the vehicle is filled to capacity and the load leveled off.

1 The weight of material in the vehicle is determined using certified scales.

2 The vehicle is either driven to the site or a minimum of 10 miles if the vehicle is not actually used to deliver material to the site.

3 The volume of the material is then determined using the method outlined in applicable paragraph 1.3.1 or 1.3.2.

4 Using the weight of material in this test vehicle and the computed volume of material a factor to convert from tons to cubic yards is determined. This conversion factor will be used to determine cubic yard quantities for material hauled from the same site with weights determined using the certified scales. The above procedures will be repeated for every 1,000 cubic yards of material delivered from the same site. The procedure for determining the conversion factor shall be witnessed by the Government."

SECTION 02300

The new revised Section 02300 is attached and made a part of this solicitation and any resulting contract.

(End of Summary of Changes)

Section Table of Contents

SECTION 02300 - EARTHWORK

SECTION 02300 - EARTHWORK

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of the Contractor furnishing all plant, labor, equipment, and materials, and performing all operations necessary for excavation, embankment and dredging as indicated in the drawings and as specified herein.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 136	(2000) Sieve Analysis of Fine and Coarse Aggregates
ASTM D 422	(2002) Particle-Size Analysis of Soils
ASTM D 1140	(2000) Amount of Material in Soils Finer than the No. 200 (75-micrometer) Sieve
ASTM D 1557	(2002e1) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. ft.)
ASTM D 2487	(2000) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2922	(2001) Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
ASTM D 2937	(2000) Density of Soil in Place by the Drive-Cylinder Method
ASTM D 3017	(2001) Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
ASTM D 4318	(2000) Liquid Limit, Plastic Limit, and Plasticity Index of Soils

1.3 MEASUREMENT AND PAYMENT

1.3.1 95% Compacted Embankment

Measurement for 95% compacted embankment including furnishing, hauling, placing, and compacting material will be made by the cubic yard. Payment will be made at the contract unit price per cubic yard for “95% Compacted Embankment”. Price and payment shall constitute full compensation for furnishing all plant, labor, materials, and equipment to complete the work as specified herein and as shown on the drawings, including documentation required for government evaluation of the borrow material source(s). The cubic yardage will be computed by the average end area method from cross sections taken prior to Clearing & Grubbing operations and using the theoretical sections of the completed embankment constructed within specified tolerance. The volume to be paid for will be the number of cubic yards of material measured in its final compacted position. The measurement will not include the volume deposited without authorization or the volume of any material used for purposes other than directed. The measurement will not include the volume of any embankment performed prior to the taking of elevations and measurements of the undisturbed grade. Excavation required to attain embankment material shall not be paid for directly and shall be included in its respective items.

1.3.2 90% Compacted Embankment

Measurement for 90% compacted embankment surcharge including furnishing, hauling, placing, and compacting material will be made by the cubic yard. Payment will be made at the contract unit price per cubic yard for “90% Compacted Embankment”. Price and payment shall constitute full compensation for furnishing all plant, labor, materials, and equipment to complete the work as specified herein and as shown on the drawings, including documentation required for government evaluation of the borrow material source(s). The cubic yardage will be computed by the average end area method using the theoretical sections of the completed embankment constructed within specified tolerance. The volume to be paid for will be the number of cubic yards of material measured in its final compacted position and as stated in previous sections. Excavation required to obtain embankment material shall not be paid for directly and shall be included in its respective items.

1.3.3 Removal of Surcharge

There will be no direct measurement or payment for removal of surcharge. The material used for surcharge will be incorporated into the project and all cost associated with the removal of surcharge shall be included under the item “95% Compacted Embankment”.

1.3.4 Excavation

Measurement for excavation will be made by the cubic yard. Payment will be made at the contract unit price per cubic yard for “Excavation”. Excavation quantities will be determined by the average end area method. The basis of measurement will be a survey of the area prior to excavation and a second survey of the same area after completion of the excavation. Price and payment shall constitute full compensation for furnishing all plant, labor, materials, and equipment to complete the work as specified herein and as shown on the drawings. This item shall include excavation to achieve design grade prior to placing embankment and excavation below the concrete floating docks as shown on the Plans.

1.4 DEFINITIONS

1.4.1 Satisfactory Materials

Satisfactory materials shall comprise any materials classified by ASTM D 2487 as CL or CH. Satisfactory materials shall be comprised of inorganic material with no stone or organic material.

1.4.2 Cohesionless and Cohesive Materials

Cohesionless materials include materials classified in ASTM D 2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML, CL, MH, and CH. Materials classified as GM and SM will be identified as cohesionless only when the fines are nonplastic. Testing required for classifying materials shall be in accordance with ASTM D 4318, ASTM C 136, ASTM D 422, and ASTM D 1140.

1.4.3 Degree of Compaction

Degree of compaction required is expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 1557 abbreviated as a percent of laboratory maximum density.

1.4.4 Approved Commercial Borrow Source

An approved commercial borrow source is a source of borrow material which is included on the Government’s list of acceptable commercial borrow sources. Acceptable sources have met the environmental clearance requirements, material quality requirements, and other requirements specified in paragraphs 3.4 and 3.5.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the

Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

1.5.1 Earthwork; G

Contractor's Borrow Source Plan

1.5.2 Soil Testing; G

Within 24 hours of conclusion of physical tests, six (6) copies of test results, including calibration curves and results of calibration tests.

1.6 SUBSURFACE DATA

Subsurface soil boring logs are shown on the drawings. These data represent the best subsurface information available; however, variations may exist in the subsurface between boring locations.

1.7 CLASSIFICATION OF EXCAVATION

No consideration will be given to the nature of the materials, and all excavation will be designated as unclassified excavation.

1.7.1 Common Excavation

Common excavation shall include the satisfactory removal and disposal of all materials not otherwise classified and shall be paid for under the contract unit price per cubic yard for "Excavation".

1.8 BLASTING

Blasting will not be permitted.

1.9 UTILIZATION OF EXCAVATED MATERIALS

Unsatisfactory materials removed from excavations shall be disposed of by the Contractor outside of the project work area. Written permission shall be provided if disposal is to be placed on private property. Satisfactory material removed from excavations shall be used, insofar as practicable, in the construction of fills, embankments, subgrades, as backfill, and for similar purposes. No satisfactory excavated material shall be wasted without specific written authorization. Satisfactory material authorized to be wasted shall be disposed of in the same manner as unsatisfactory materials. No excavated material shall be disposed of to obstruct the flow of any stream, endanger a partly finished structure, impair the efficiency or appearance of any structure, or be detrimental to the completed work in any way.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 STRIPPING OF TOPSOIL

Topsoil shall be stripped to a depth of 6 inches. Topsoil shall be spread on areas already graded and prepared for topsoil, or transported and deposited in stockpiles convenient to areas that are to receive application of the topsoil later, or removed from the site. Topsoil shall be kept separate from other excavated materials, brush, litter, objectionable weeds, roots, stones larger than 2 inches in diameter, and other materials that would interfere with planting and maintenance operations. Any surplus of topsoil from excavations and grading shall be removed from the site.

3.2 EXCAVATION

3.2.1 GENERAL EXCAVATION

The Contractor shall perform excavation of every type of material encountered within the limits of the project to the lines, grades, and elevations indicated and as specified. Grading shall be in conformity with the typical sections shown. Satisfactory excavated materials shall be transported to and placed in fill or embankment within the limits of the work. Unsatisfactory materials encountered within the limits of the work shall be excavated below grade and replaced with satisfactory materials as directed. Such excavated material shall be included in excavation. Payment for excavation and removal of such material shall be as addressed in the Changes clause of these specifications. Unsatisfactory excavated material shall be removed from the site. During construction, excavation and fill shall be performed in a manner and sequence that will provide proper drainage at all times. Material required for fill or embankment in excess of that produced by excavation within the grading limits shall be excavated from borrow areas or from other approved areas selected by the Contractor as specified. Excavation for borrow shall not be paid for directly, cost to be included in its respective item.

3.3 SELECTION OF BORROW MATERIAL

Borrow material shall be selected to meet the requirements and conditions of the particular fill or embankment for which it is to be used. Borrow material shall be Contractor Furnished and obtained from a commercial borrow source. Unless specifically provided, no borrow shall be obtained within the limits of the project site.

3.3.1 Documentation Of Contractor Furnished Commercial Borrow Source

Following Contract award, and in accordance with paragraphs 3.3 and 3.4, the Contractor shall submit a Borrow Source Plan which identifies the Contractor Furnished Commercial Borrow Source(s) and either includes documented verification

of the satisfaction of all the requirements specified in paragraph 3.4, or includes documented verification that the borrow source is an approved commercial borrow source. A current list of approved commercial borrow sources is available from the Contract Officer.

3.3.2 Offeror's Borrow Source Proposal

An Offeror's Borrow Source Proposal is required to be submitted with the Contractor's proposal in response to the solicitation. The proposal shall include, at least, the following items: identification of the commercial borrow source(s); excavation, on/offsite processing, stockpiling; and haul plans. The Offeror's Borrow Source Proposal shall also include representative data pertaining to the proposed borrow source(s) size, location , material quality, and a letter of intent from the facility owner to provide material as specified in this specification. Provide a statement describing available borrow data and apply that data to support the Offeror's ability to meet all contract requirements, including, but not limited to, all environmental clearances and engineering and other criteria, as required in this Specification Section. Offeror's will be evaluated on their understanding of and capability to meet the work requirements. Review of the proposal, for evaluation to award, does not obligate the Government to accept a Borrow Source. For borrow source approval, the Offeror is required to provide sufficient and appropriate data and documentation set forth in accordance with the Contractor's Borrow Source Plan submittal requirements of paragraphs 3.3 and 3.4.

3.3.3 Contractor's Borrow Source Plan

A Contractor borrow source plan is required to be submitted within 30 days after NTP and shall incorporate the Offeror's Borrow Source Proposal and expand upon that data, by meeting all the requirements set in 3.3 and 3.4, as applicable. The plan shall be submitted to the COR for review and approval/acceptance. The Government requires 30 days to review the submittal plan after all required data has been submitted. The Contractor is advised to provide this time in the construction schedule. If the plan is based upon a Government Approved Commercial Borrow Source, the Contractor's submittal time and Government review time may be significantly reduced.

3.3.4 Alternate Borrow Sources

Upon approval of the Contracting Officer, alternate sources of borrow may be utilized for this contact. Such approval will be dependant upon evaluation and satisfaction of all the requirements of paragraphs 3.3 and 3.4.

3.4 CONTRACTOR-FURNISHED COMMERCIAL BORROW SOURCES

3.4.1 General

All costs arising or growing out of the use of Contractor- furnished commercial borrow sources shall be borne by the Contractor.

3.4.2 Time Extensions

No time extension to the contract completion date will be granted to the Contractor for delays incurred in obtaining Contractor-furnished borrow sources. The Contractor shall be solely responsible for any and all damages, claims for damages, and liability of any nature whatsoever arising from or growing out of the use of borrow sources, other than those furnished by the Government.

3.4.3 Approval

Approval of the location and dimensions of the Contractor-furnished borrow source, or of the Contractor Borrow Source Plan, shall neither relieve the Contractor from its obligation to furnish satisfactory material to the project nor commit the Government to the acceptance of the responsibility for the character, quantity, or availability of material in, and from, Contractor-furnished borrow sources.

3.4.4 Contractor Borrow Source Plan - Submittal Requirements

For sources that are not Government Approved Commercial Borrow Sources the following information described in paragraphs 3.4.4 and 3.4.5 below shall be submitted by the Contractor in a single, complete package in quadruplicate, for government review.

(1) Property rights documentation.

(2) Zoning classification.

(3) Louisiana Department of Transportation and Development (LADOTD) permits or approvals.

(4) Maps as follows:

(a) Location and Direction map.

(b) Topographic map(s) with scale of 1:24,000.

(c) Layout map with dimensions and property reference points.

(d) Soil boring location map.

(5) Plotted cross sections.

(6) Soil boring logs and report, and laboratory soil classification test results.

(7) Cultural resources investigation report.

(8) Certified agronomist test results.

(9) Excavation plan.

(10) Environmental protection plan.

3.4.5 Submittal Package Requirements In Detail

3.4.5.1 Property Rights Documentation

Written evidence that the Contractor has acquired the property rights and access to the commercial borrow sources(s) it intends to use on this contract, as appropriate. The written evidence shall consist of an authenticated copy of the land owner's conveyance under which the land owner has acquired the property rights and access thereto, prepared and executed in accordance with the laws of the State of Louisiana; and written evidence that the Contractor has acquired the property rights and access thereto by agreement with the land owner, as appropriate. This agreement between the landowner and the Contractor may be provisional on the Government's approval of the Contractor's proposed borrow source. If temporary rights are obtained by the Contractor, then the period of time should coincide with the Section 00700 clause entitled *Commencement, Prosecution, And Completion Of Work (FAR 52.211-10)*, plus a reasonable time for any extension granted for the completion of the contract work.

3.4.5.2 Zoning Classification

Written evidence that the property intended for use as a borrow source contains the proper zoning classification that will allow the Contractor to excavate to use it as a borrow source. This evidence shall consist of a letter from the local land zoning office stating the zoning classification of the area proposed as the commercial borrow source.

3.4.5.3 Maps

The following maps shall be provided:

(1) A map of the general area giving detailed instructions on how to get to the commercial borrow source from the nearest major highway.

(2) A topographic map(s) (quadrangle) with a scale of 1:24,000 with the location of the borrow source superimposed.

(3) A layout map of the area of the borrow source showing the dimensions of the borrow source area, locations of soil borings, and reference points tied to the property boundaries. The map shall show the location and dimensions of any haul road that exists or is to be constructed to help the Contractor in its hauling operation. The map shall also show the location and dimensions of any protection dikes which will help drain and keep the borrow area dry.

(4) The most recent parish surface soils map with the location of the borrow source superimposed.

3.4.5.4 Plotted Cross Sections

Plotted cross sections of the commercial borrow source in sufficient quantity (maximum of 300-ft. intervals) to give a true representation of the topography of the area. The proposed excavation lines shall be superimposed on these cross sections, so that an accurate computation of the available material can be made.

3.4.5.5 Soil Boring Logs And Report, And Laboratory Soil Classification Test Results

Documentation of soil borings of the Contractor- furnished commercial borrow source, to a depth of at least 5 feet below the depth of planned excavation. The borings documentation shall be furnished by the Contractor and shall indicate a spacing that will adequately define the material in the source to be utilized for this contract but in no case spaced greater than 500 feet on centers. Borings along the proposed borrow source boundary shall be located no farther than one-half of the boring spacing in the pit or 250 feet, whichever is less. Soil samples from these borings shall be classified in accordance with the Unified Soil Classification system and shall include water content determinations based on the dry weight of the representative soil samples, taken at each 2.5 feet of depth of the boring or change in strata. These representative soil samples shall be submitted to an approved independent laboratory, properly labeled and sealed in an airtight container to preserve the natural water content for laboratory determination. The resulting classification and water content determination and borrow source area boring logs shall be submitted to the Contracting Officer for determination of the suitability of the material for construction use. Soil boring locations shall be shown on the layout map required by paragraph 3.4.5.3(3).

3.4.5.6 Cultural Resources Investigation Report

A written report by a professional archeologist, which meets the report requirements of the Louisiana Division of Archeology and explains the results of the field investigation made by him of the Contractor-furnished commercial borrow source.

The field investigation shall consist of a comprehensive inspection of the proposed borrow source area, including access roads, and shall be adequate enough to determine if any cultural resources that are eligible for listing in the National Register will be impacted. This report will be evaluated by the Contracting Officer and the Corps' cultural resources specialists to determine the adequacy of the cultural resources investigation to discharge the Corps' cultural resource responsibilities. The Corps' cultural resource specialist will consult with the Louisiana State Historic Preservation Officer (SHPO) and all other required agencies. All costs of mitigating adverse effects to cultural resources, if required, shall be borne by the Contractor. It is the responsibility of the contractor to ensure that significant cultural resources are not impacted use of this borrow source.

3.4.5.7 Certified Agronomist Test Results

Written results of tests performed by a certified public or private agronomist to prescribe whatever modifications, if any, will have to be made to Section(s) of this Specification addressing, "FERTILIZING AND SEEDING" to insure a satisfactory growth of grass. The borrow source material shall be free of deleterious chemicals which would impede the satisfactory growth of grass. All costs associated with the testing of the commercial borrow source material and modifying the Fertilizing and Seeding specification to insure an adequate growth of grass shall be borne by the contractor.

3.4.5.8 Excavation Plan

The Contractor shall provide the Contracting Officer a plan for clearing, stripping, and excavating materials from the Contractor-furnished commercial borrow source, as appropriate. In its plan, the Contractor shall show work areas, stockpile areas, etc, all within our outside of the commercial borrow source property boundaries. The Contractor shall not work or move material outside the boundaries of the approved limits of its work areas. The Contractor shall indicate in writing and show on its layout plans details of the following:

(1) A stockpile plan for cleared and stripped material and debris to include disposal areas.

(2) The locations for disposal of wasted material discovered in the borrow area. Location of any haul roads constructed to help the Contractor in its hauling operations.

(3) A plan for stockpiling embankment material before it is transported to the project site to include locations, stockpile heights, slopes, and limits.

(4) The method and route for transporting the excavated material from the Contractor-furnished borrow source to the project site.

(5) The proposed methods for draining and keeping dry during excavation the borrow source area excavated for this contract, including any protection dikes constructed to alleviate drainage problems.

(6) A complete list of excavation and transportation equipment planned for use in its operations.

(7) The Contractor's proposed sequence of excavation of the borrow source showing starting and ending work locations.

(8) A list of the permits required and issuing office.

3.4.5.9 Environmental Protection Plan

A proposal for implementing Section 01352 of this contract insofar as that section applies to borrow material sources.

3.4.6 Government Performed Environmental Assessment

The Government is required to perform an environmental assessment on all new proposed borrow areas without regard to the source. An environmental assessment must be conducted for all commercial borrow sources and must be approval by the Government prior to use of the source. Before the Government will evaluate the environmental assessment, the contractor must submit all of the above items as a single, complete package. The Contracting Officer reserves the right to disapprove the use of Contractor-furnished borrow sources, (for example those located in woodlands or wetlands.)

3.5 RESERVED

3.6 EXCAVATION IN BORROW AREAS

The Contractor shall provide the types of equipment as necessary to perform the required excavation according to the in situ conditions of the borrow area.

3.7 GRADING AREAS

Where indicated, work will be divided into grading areas within which satisfactory excavated material shall be placed in embankments, fills, and required backfills. The Contractor shall not haul satisfactory material excavated in one grading area to another grading area except when so directed in writing.

3.8 BACKFILL

Backfill adjacent to any and all types of structures shall be placed and compacted to at least 90 percent laboratory maximum density for cohesive materials or 95 percent

laboratory maximum density for cohesionless materials to prevent wedging action or eccentric loading upon or against the structure. Ground surface on which backfill is to be placed shall be prepared as specified in paragraph 3.9. Compaction requirements for backfill materials shall also conform to the applicable portions of paragraphs 3.9, 3.10, and Section 02316. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment.

3.9 PREPARATION OF GROUND SURFACE FOR EMBANKMENTS

3.9.1 General Requirements

Ground surface on which fill is to be placed shall be stripped of live, dead, or decayed vegetation, rubbish, debris, and other unsatisfactory material; plowed, disked, or otherwise broken up to a depth of 12 inches; pulverized; moistened or aerated as necessary; thoroughly mixed; and compacted to at least 95 percent laboratory maximum density for materials. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment. The prepared ground surface shall be scarified and moistened or aerated as required just prior to placement of embankment materials to assure adequate bond between embankment material and the prepared ground surface.

3.10 EMBANKMENTS

3.10.1 Earth Embankments

Earth embankments shall be constructed from satisfactory materials free of organic or frozen material and rocks. The material shall be placed in successive horizontal layers of loose material not more than 12 inches in depth. Each layer shall be spread uniformly on a soil surface that has been moistened or aerated as necessary, and scarified or otherwise broken up so that the fill will bond with the surface on which it is placed. After spreading, each layer shall be plowed, disked, or otherwise broken up; moistened or aerated as necessary; thoroughly mixed; and compacted to at least 95 percent laboratory maximum density. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment.

3.10.2 Surcharge Embankments

Surcharge embankments shall be constructed from satisfactory materials free of organic or frozen material and rocks. The material shall be placed in successive horizontal layers of loose material not more than 12 inches in depth. Each layer shall be spread uniformly on a soil surface that has been moistened or aerated as necessary, and scarified or otherwise broken up so that the fill will bond with the surface on which it is placed. After spreading, each layer shall be plowed, disked, or otherwise broken up; moistened or aerated as necessary; thoroughly mixed; and

compacted to at least 90 percent laboratory maximum density. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment.

3.10.3 Removal of Surcharge

Surcharge shall be removed after six (6) months. Material used for surcharge shall be removed and salvaged for use on this project at locations to receive 95% Compacted Embankment. Material removed from surcharge and used as 95% Compacted Embankment shall meet all requirements as outlined in these specifications.

3.11 RESERVED

3.12 FINISHING

The surface of excavations, embankments, and subgrades shall be finished to a smooth and compact surface in accordance with the lines, grades, and cross sections or elevations shown. The degree of finish for graded areas shall be within 0.1 foot of the grades and elevations indicated. Gutters and ditches shall be finished in a manner that will result in effective drainage.

3.13 TESTING

Testing shall be performed by an approved commercial testing laboratory. Field in-place density shall be determined in accordance with ASTM D 2922. ASTM D 2922 results in a wet unit weight of soil and when using this method ASTM D 3017 shall be used to determine the moisture content of the soil. The calibration curves furnished with the moisture gauges shall also be checked along with density calibration checks as described in ASTM D 3017; the calibration checks of both the density and moisture gauges shall be made at the beginning of a job on each different type of material encountered and at intervals as directed by the Contracting Officer. When test results indicate, as determined by the Contracting Officer, that compaction is not as specified, the material shall be removed, replaced and recompacted to meet specification requirements. Tests on recompacted areas shall be performed to determine conformance with specification requirements. The following number of tests, if performed at the appropriate time, will be the minimum acceptable for each type operation.

3.13.1 In-Place Densities

a. One test per 20,000 square feet, or fraction thereof, of each lift of fill areas compacted.

b. One test per 100 linear feet, or fraction thereof, of each lift of embankment or backfill for roads.

Moisture content tests shall be conducted whenever a compaction test is required. The allowable moisture range for the fill material shall be +3 to –2 percent of optimum.

3.13.2 Check Tests on In-Place Densities

If ASTM D 2922 is used, in-place densities shall be checked by ASTM D 1556 as follows:

a. One check test per lift for each 20,000 square feet, or fraction thereof, of each lift of fill or backfill compacted.

b. One check test per lift for each 100 linear feet, or fraction thereof, of embankment or backfill for roads.

3.13.3 Optimum Moisture and Laboratory Maximum Density

Tests shall be made for each type material or source of material including borrow material to determine the optimum moisture and laboratory maximum density values. One representative test per 10,000 cubic yards of fill and backfill, or when any change in material occurs which may affect the optimum moisture content or laboratory maximum density.

3.14 SUBGRADE AND EMBANKMENT PROTECTION

During construction, embankments and excavations shall be kept shaped and drained. Ditches and drains along subgrade shall be maintained to drain effectively at all times. The finished subgrade shall not be disturbed by traffic or other operation and shall be protected and maintained by the Contractor in a satisfactory condition until ballast, subbase, base, or pavement is placed. The storage or stockpiling of materials on the finished subgrade will not be permitted. No subbase, base course, ballast, or pavement shall be laid until the subgrade has been checked and approved, and in no case shall subbase, base, surfacing, pavement, or ballast be placed on a muddy, spongy, or frozen subgrade.